

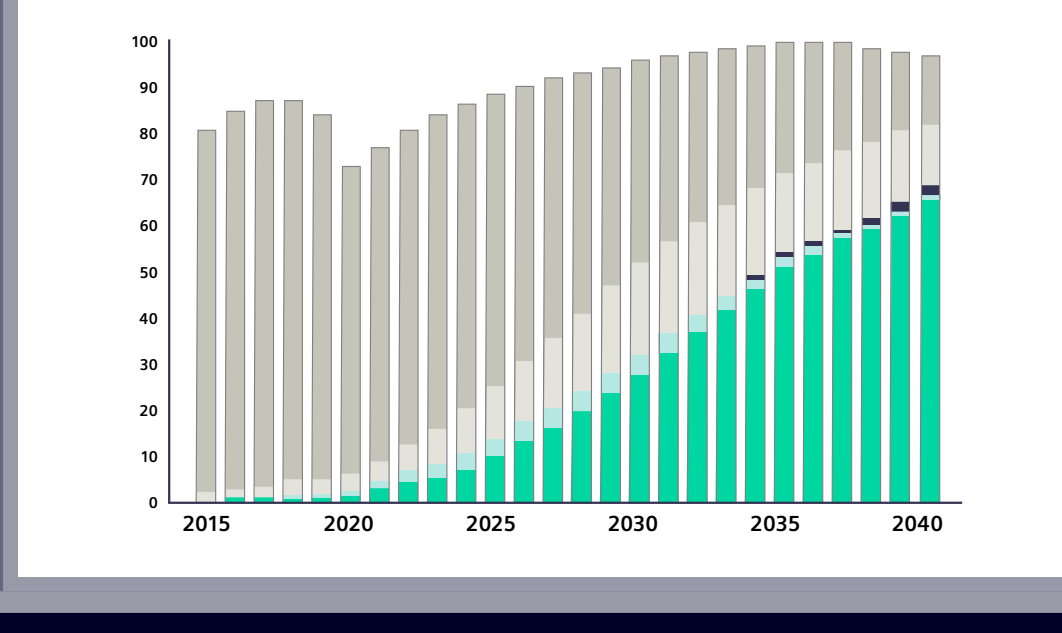
Vehicle Electrification and E/E System Development

Market Growth

Global passenger vehicle sales outlook by drivetrain



Due to falling battery prices, EV sales will outpace traditional vehicle sales in the next decade.



Internal combustion Fuel cell Battery electric
Hybrid Plug-in hybrid

Source: BNEF

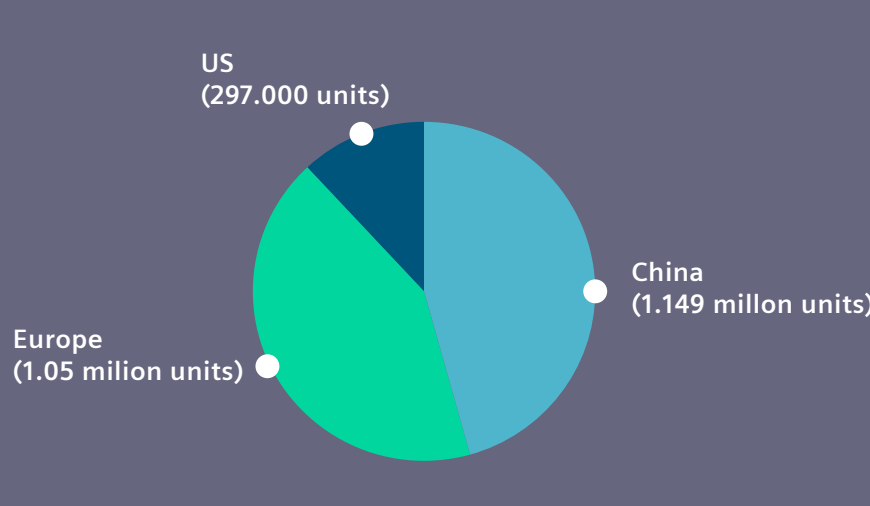
During the pandemic, EV sales grew by 42% while global automotive markets shrank. New-EV sales more than doubled worldwide in 2021, accounting for around 9% of total new-car sales.

Source: IEA

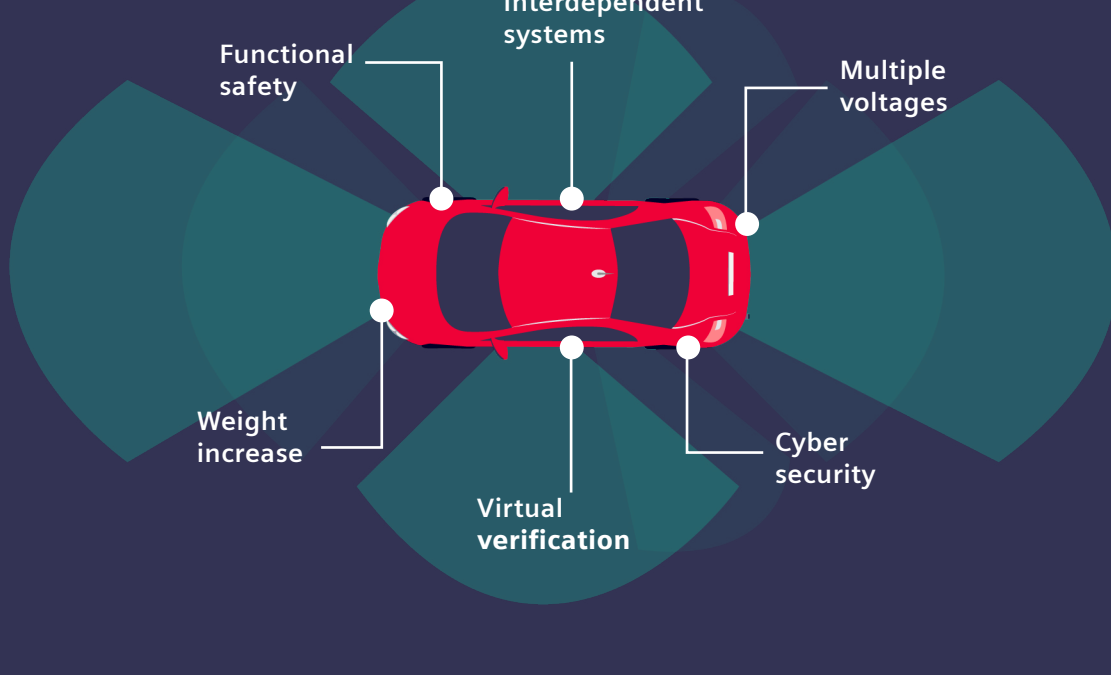


Source: IEA, UBS, EV volumes, Fortune Business Insights

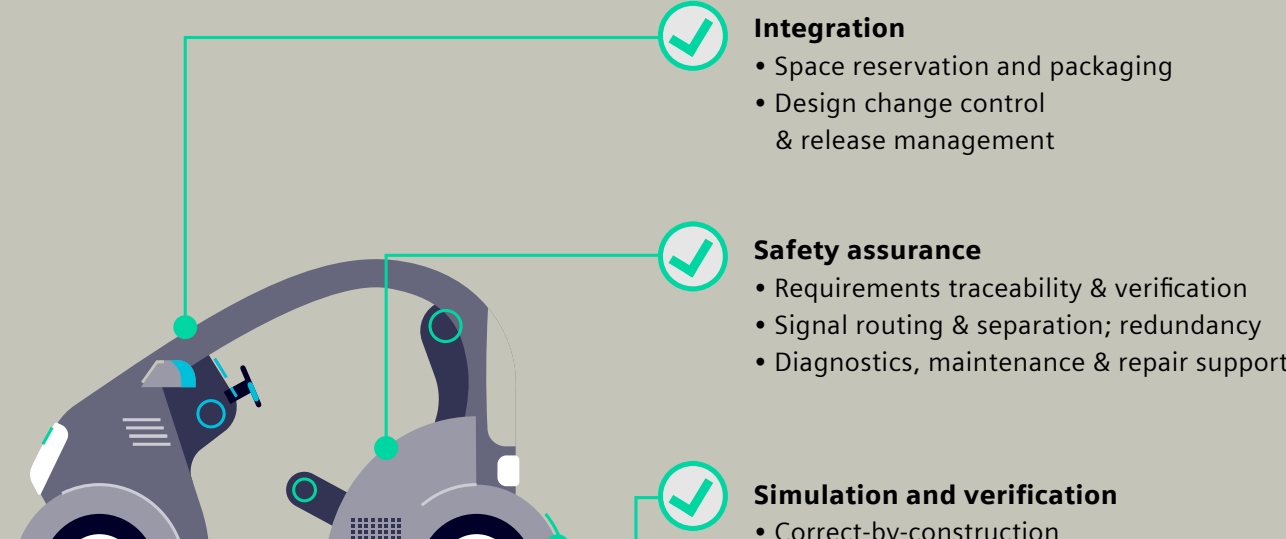
New EV registrations by area for H1 2021



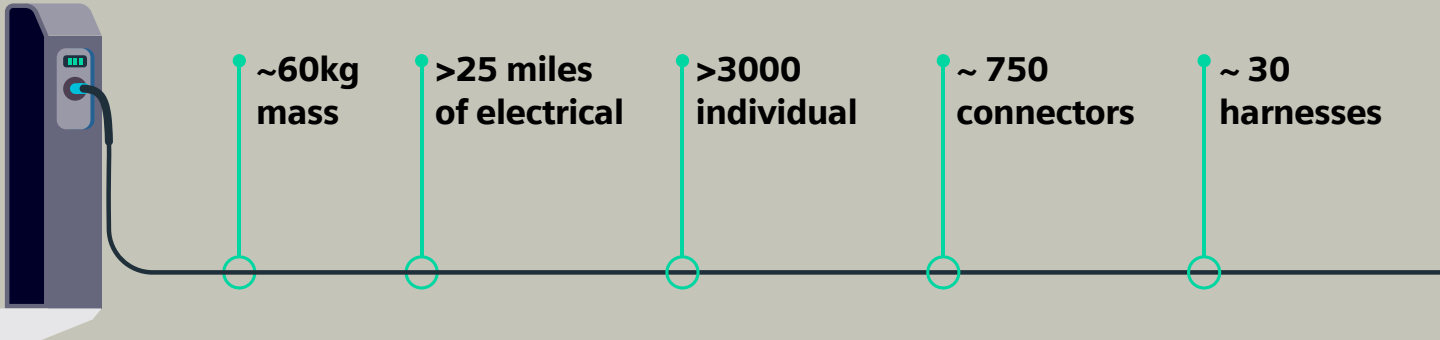
Electrification drives clean sheet E/E architectures



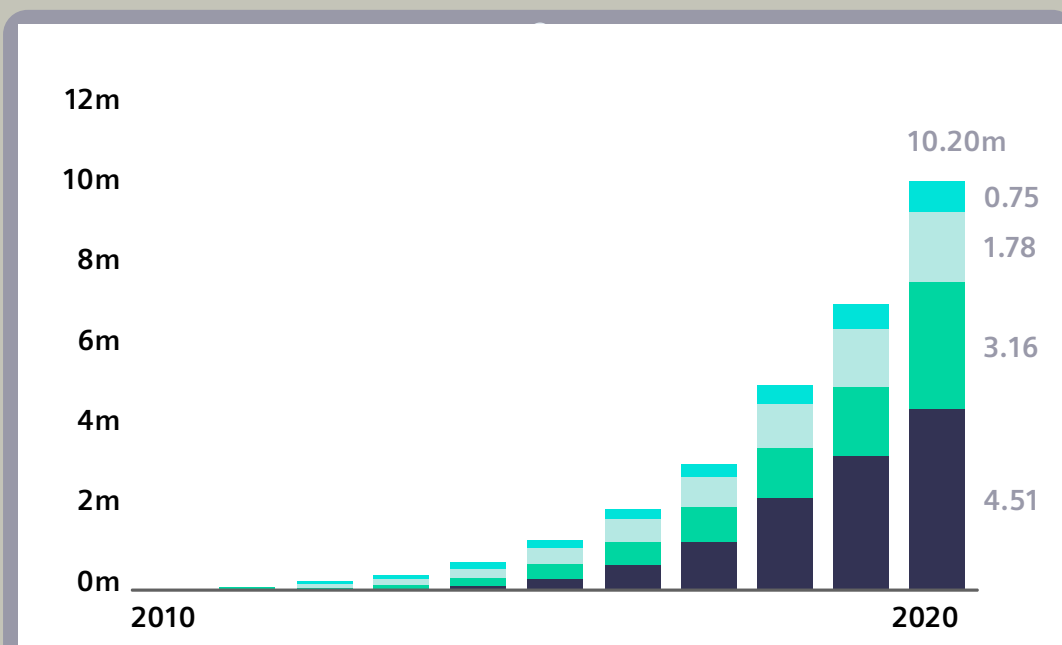
EV electrical system design integration, safety and verification



Today's electric vehicles have a huge amount of electrical content



Global Electric Car Stock passes 10-Million Milestone

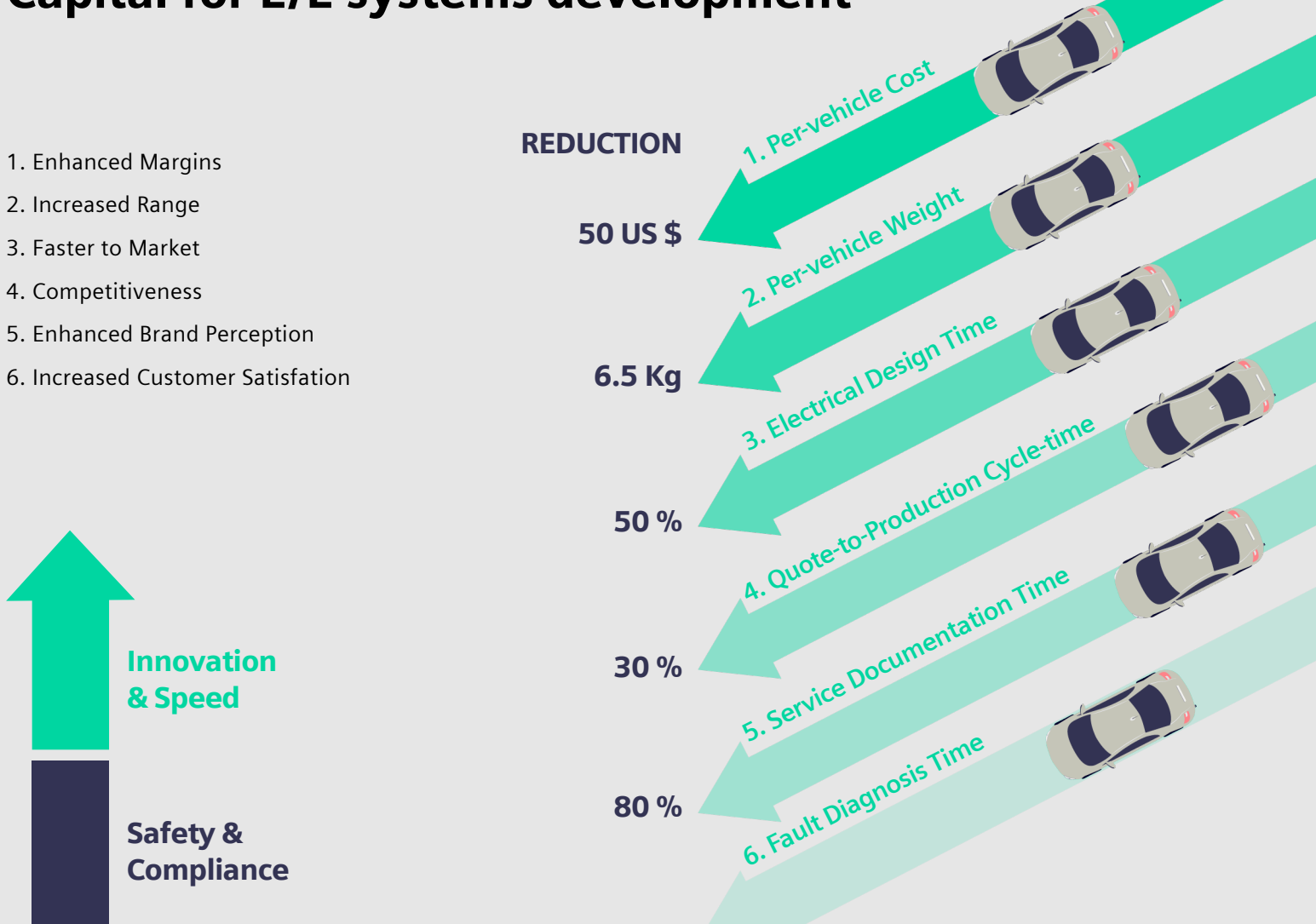


Rest of the World Europe United States China

* includes plug-in hybrids

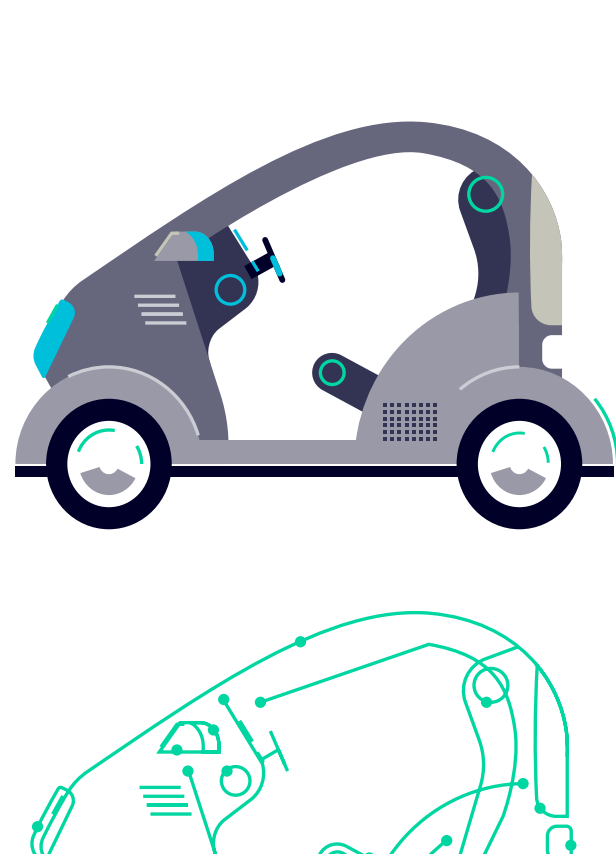
Source: International Energy Agency

Benefits customers have realized using Capital for E/E systems development



Solution

Collaborative approach with the digital twin



- Cost reduction**
Reduce the number of physical prototypes with a digital twin of the product
- Engineering collaboration**
Drive cross domain engineering integration with a secure digital backbone
- Manufacturing agility**
Cut changeover time and increase efficiency with a digital twin of manufacturing
- Predictive maintenance**
Leverage data insights and reduce unplanned downtime with closed loop feedback
- Quality control**
Update and share specifications and regulations with the entire ecosystem
- Speed to market**
Incorporate new technologies faster than the competition